

CI: 0.333-1.068;  $p=0.07$ ) which approached significance. Also, palivizumab users incurred significantly lower all-cause costs compared to non-users (\$6,206 vs. \$7,238;  $p<0.0001$ ). In the 2010-2011 season, 317 palivizumab users and 317 non-users were identified. palivizumab users had a similar effect on the likelihood of diagnoses of pneumonia (OR: 0.595; 95% CI: 0.278-1.272;  $p=0.18$ ) and bronchiolitis (OR: 0.621; 95% CI: 0.346-1.112;  $p=0.108$ ). Also, palivizumab users incurred significantly lower all-cause costs compared to non-users (\$5,761 vs. \$6,562;  $p<0.0001$ ). **CONCLUSIONS:** When used in accordance with the 2009 American Academy of Pediatrics Policy Statement, palivizumab appeared to reduce episodes of pneumonia and bronchiolitis among children enough to reduce total program costs even though the reductions were not statistically significant.

#### PRS40

##### MEASUREMENT OF PRIMARY MEDICATION ADHERENCE AMONG CHILDREN WITH ASTHMA USING ADMINISTRATIVE CLAIMS DATA

Vaidya V<sup>1</sup>, Lehman JA<sup>1</sup>, Balkrishnan R<sup>2</sup>

<sup>1</sup>University of Toledo, Toledo, OH, USA, <sup>2</sup>University of Michigan, Ann Arbor, MI, USA

**OBJECTIVES:** Majority of the existing research on medication adherence has focused on secondary non-adherence, with only a few studies on primary medication non-adherence (PMN). PMN is defined as the failure of a patient to fill a new medication prescribed by the healthcare provider. The main objective of this study was to formulate a comprehensive approach to capture PMN using commercial claims datasets and to test it among pediatric population with asthma. **METHODS:** This study utilized a retrospective longitudinal cohort study design involving Medicaid claims data. The study population consisted of asthma patients 16 years or younger continuously enrolled for the entire study period. The patients were deemed as PMN cases if they were found to have presence of only one claim for asthma controller medication indicating failure to any subsequent refills. A multiple logistic regression model was built to assess the predicting factors of PMN. **RESULTS:** There were 8892 patients who met the inclusion criteria for this study. Of the total 8,892 patients 43% (3,846) patients stopped filling their prescription after the initial one. African Americans (OR= 0.893; CI= 0.809- 0.986), other minorities (OR= 0.842; CI= 0.742- 0.954), were less likely to have PMN compared to the Caucasians. Number of co morbidities decreased the odds of having PMN (OR=0.801; CI= 0.73- 0.879) while fees-for-service plans (OR= 1.18; CI= 1.072- 1.298) increased. **CONCLUSIONS:** The study successfully identified patients that could be attributed to PMN using a population based claims dataset. The rate of PMN identified in this analysis is alarmingly higher than any previous study. This could be explained due to two factors: 1) The unique methodology applied in this study; 2) The study population being drawn from Medicaid beneficiaries who are primarily belonging to low income groups. Future research is warranted to address the issue of PMN.

#### PRS41

##### ETHNIC DISPARITIES IN THE INHALED CORTICOSTEROID PRESCRIPTION PATTERNS FOR CHRONIC OBSTRUCTIVE PULMONARY DISEASE

Kharat AA<sup>1</sup>, Borrego M<sup>2</sup>, Bakhireva L<sup>3</sup>

<sup>1</sup>University of New Mexico, Albuquerque, NM, USA, <sup>2</sup>University of New Mexico College of Pharmacy, Albuquerque, NM, USA, <sup>3</sup>University of New Mexico Health Sciences Center, Albuquerque, NM, USA

**OBJECTIVES:** Inhaled corticosteroids (ICS) are widely used in the management of chronic obstructive pulmonary disease (COPD). Prior research suggests that COPD patients' access to ICS may vary by ethnicity. The objectives of the study were to determine if there is a difference in the proportion of Hispanic and non-Hispanic White patients taking ICS for COPD and to determine the independent predictors of taking an ICS prescription in COPD patients. **METHODS:** The US Medical Expenditure Panel Survey (MEPS) 2007 dataset was utilized to compare ICS prescription patterns among patients with COPD. The sample size was restricted to Hispanic and non-Hispanic White patients with ICD-9CM codes for COPD between January 1 and December 31, 2007. Proportion of patients receiving ICS prescriptions within the defined timeframe was compared by ethnicity in chi-square analysis. Multivariate logistic regression was used to determine significant predictors of receiving an ICS prescription. **RESULTS:** Among 1057 COPD patients included in the analysis, 16% were Hispanics, 58.5% females, and the mean age of the study population was 45.8±24.5. ICS were prescribed for 5.2% of Hispanic and 17.2% of non-Hispanic White patients ( $p=0.02$ ). Non-Hispanic White patients with COPD had 9.37 (95% CI: 1.39; 73.28) higher odds of receiving ICS prescription than Hispanic patients independent of age, marital status, education, smoking status, and health insurance. Among other risk factors, only smoking was predictive of receiving a prescription for ICS (OR=1.80; 95% CI: 1.03; 3.11), independent of other factors. **CONCLUSIONS:** Hispanic COPD patients had substantially lower odds of receiving an ICS prescription. This disparity in ICS prescription patterns may translate into suboptimal COPD management, a higher rate of exacerbations, and higher healthcare costs in this growing minority population. The differences and potential disparities in ICS use between Hispanic and non-Hispanic White COPD patients warrant further investigation.

#### PRS42

##### DISPARITIES IN HEALTH CARE RESOURCES USE AMONG ASTHMA PATIENTS IN BRAZIL

Viana KP<sup>1</sup>, Soares CR<sup>1</sup>, Bochembuzio M<sup>2</sup>, Moreira JPD<sup>3</sup>, Figueiredo D<sup>1</sup>

<sup>1</sup>GlaxoSmithKline, Rio de Janeiro, Brazil, <sup>2</sup>GlaxoSmithKline, São Paulo, Brazil, <sup>3</sup>Federal University of Rio de Janeiro, Rio de Janeiro, Brazil

**OBJECTIVES:** The prevalence, policies and disease control programs for Asthma vary considerable across the country. The aim of this study is the evaluation of inequalities in utilization of healthcare resources in Asthma diagnosed population by using a national household survey. **METHODS:** We used data from 2008 Health Supplement of the National Household Sample Survey (PNAD) conducted by Brazilian Institute of Geography and Statistics (391,868 subjects). The study population was subjects aged  $\leq 14$  years with self-reported medical diagnosed asthma or bronchitis, comprising 7,509 subjects. The outcomes were presence of hospital admission and physician visit in the last year, and use of chronic medication. The outcomes were analyzed by socio-demographic variables. Statistical analysis comprised logistic regression for association measures, and  $\chi^2$  and F test to test results independence, being significant  $p<0.005$ . All analysis considered complex plan sampling. **RESULTS:** In one year, among the diagnosed asthma and bronchitis patients, 84.0% had physician visit and 12.6% had hospital admission. Also, 16% reported use of chronic medication. The frequency of hospital admission decreased with the increasing of age (OR: 0.85  $p<0.001$ ) and of household head educational level (OR: 0.88  $p<0.001$ ). Also, hospital admission varied significantly across the Brazilian regions (16.0% in North and Northeast to 9.8% in South  $p<0.001$ ). The presence of physician visit and use of chronic medication increased with the household educational level (OR: 1.32  $p<0.001$  and OR:1.34  $p<0.001$ , respectively) and decreased with the household overcrowding (person/bedroom) (OR:0.89 and OR: 0.88, respectively). Furthermore, physician visit and use of chronic medication were higher in more developed regions and white household head. **CONCLUSIONS:** Patients with greater use of physician visit and medication had lower frequencies of hospital admission. Considering the regional disparities, it is imperative to implement effective national asthma management approaches aimed at the appropriate target populations.

#### PRS43

##### COMPARISONS OF PATIENT CHARACTERISTICS AND HEALTH CARE COSTS BY QUARTILE AMONG PATIENTS WITH ALLERGIC RHINITIS

Desai U<sup>1</sup>, Ivanova JI<sup>2</sup>, Birnbaum HG<sup>1</sup>, Cummings AK<sup>1</sup>, Bornstein A<sup>1</sup>, Karafilidis J<sup>3</sup>, Spalding W<sup>4</sup>

<sup>1</sup>Analysis Group, Inc., Boston, MA, USA, <sup>2</sup>Analysis Group, Inc., New York, NY, USA, <sup>3</sup>Sunovion Pharmaceuticals, Inc., Marlborough, MA, USA, <sup>4</sup>Ironwood Pharmaceuticals, Inc., Cambridge, MA, USA

**OBJECTIVES:** To compare characteristics of patients with diagnosed allergic rhinitis (AR) by quartiles of health care costs. **METHODS:** Patients 12-64 years of age with  $\geq 2$  AR diagnoses or  $\geq 1$  diagnosis and  $\geq 1$  AR-related prescription claim continuously eligible for 12 months before and 12 months after an AR diagnosis (1/1/2008-3/31/2011) were identified from a privately-insured claims database (N~14,000,000). The index date was defined as the most recent AR diagnosis date meeting the eligibility criteria, baseline period as 12 months before, and study period as 12 months after the index date. Descriptive analyses compared demographic characteristics, co-morbidities, healthcare resource utilization and costs (inflated to 2010 dollars) among patients in different quartiles of study period health care costs. **RESULTS:** A total of 146,597 patients met the inclusion criteria. Health care costs per patient ranged from \$0-\$1,118 for the lowest quartile(Q1) to \$6,349-\$1,059,699 for the top quartile(Q4). Q4 patients were significantly ( $p<0.05$ ) older (age 46 vs. 44[Q3], 40[Q2], 36[Q1]), had significantly higher proportion of women (66.5% vs. 62.6%, 56.7%, 43.9%), had more co-morbid conditions (e.g., sinusitis, asthma, depression, sleep apnea), and used significantly more medications (13.4 vs. 8.8, 6.1, 3.7) at baseline than patients in lower quartiles. During the study period, Q4 patients had significantly higher rates of inpatient visits (26.7% vs. 3.4%, 1.2%, 0.6%), emergency department visits, outpatient/other days, and prescription drug use, as well as higher healthcare costs (\$19,519 vs. \$4,186, \$1,798, \$544), and they accounted for 75% of health care costs among AR patients. Additionally, Q4 patients had the highest AR-related costs (\$662 vs. \$521, \$345, \$155) and accounted for 40% of AR-related costs among AR patients. **CONCLUSIONS:** Health care costs for patients with AR were highly variable, with patients in the top quartile responsible for the majority of costs. High cost AR patients were older, had higher proportions of co-morbid conditions and higher health care resource utilization than lower cost AR patients.

#### PRS44

##### EDUCATION PLAYS A VITAL ROLE IN THE ATTITUDE TOWARD THE USAGE OF PROTECTIVE METHODS AND RESULTING LESSER MORBIDITIES AMONG AGATE WORKERS

Aggarwal BD

National Institute of Occupational Health (NIOH), Ahmedabad, Gujarat, India

**OBJECTIVES:** To assess the awareness among Agate worker about silicosis, preventative methods, and usage of preventative methods and factors affecting the their usage. **METHODS:** It is a cross-sectional study among agate workers in Khambhat region of Gujarat State in India. The Khambhat region is known for the household agate industry, and many of workers are poorly educated and are at risk of deadly Silicosis disease due to exposure of silica dust generated by agate grinding. This study was conducted to assess the awareness level about silicosis, awareness about the protective methods, worker attitude toward health, and prevalence of actual use of protective methods to avoid silica exposure. The study was based on questionnaire based structured interviews of 82 agate workers. **RESULTS:** Analysis of the results suggests that majority of the workers (55%) were aware about the silicosis, harmful effect of silica-dust exposure (72%), protective methods to avoid silica-dust exposure (80%), but only minority of the workers (22%) are actually using the protective methods. Further investigation reveals the more educated workers are more likely to use the easily available protective methods than the less educated or illiterate workers, though the awareness about of the silicosis and protec-